

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 September 2005 (29.09.2005)

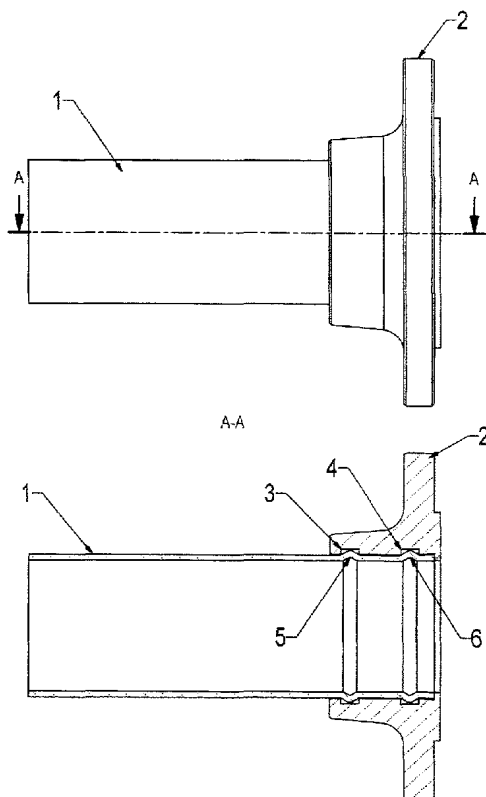
PCT

(10) International Publication Number
WO 2005/089975 A1

- (51) International Patent Classification⁷: **B21D 39/06**, F16L 19/02 (74) Agent: LANGFELDT, Jens, F., C.; Zacco Norway AS, P.O. Box 765, Sentrum, N-0106 Oslo (NO).
- (21) International Application Number: PCT/NO2005/000093 (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 18 March 2005 (18.03.2005)
- (25) Filing Language: Norwegian
- (26) Publication Language: English
- (30) Priority Data: 20041215 24 March 2004 (24.03.2004) NO
- (71) Applicant (for all designated States except US): **QUICK-FLANGE AS** [NO/NO]; Hovedgaten 13, N-4900 Tvedestrand (NO).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **KAROLIUSSEN, Hilberg** [NO/NO]; Svaleveien 16, N-4950 Risør (NO).
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR COLD JOINING FLANGES AND COUPLINGS ELEMENTS TO PIPES



(57) Abstract: A method for joining flanges or other couplings to pipes, wherein a plurality of radially expanding segments (10) with circular ridges (11) on a tool inserted into the pipe (1), press beads (5, 6) in the pipe wall into corresponding grooves (3, 4) in the surrounding coupling element (2), where the pipe end, by means of a projection on the segments, is given an overbending outwards that prevents the pipe end from tapering inwards during the pressing of the beads. The invention comprises the interior configuration of the coupling element as well as a tool for pressing the beads.

WO 2005/089975 A1



SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*